

## **ACKLEY LAKE DAM**

### **Fact Sheet**

#### **PROJECT DESCRIPTION**

- ◆ Off-stream storage reservoir fed by the Judith River
- ◆ 10 miles southwest of Hobson in Judith Basin County
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by Ackley Lake Water Users Association since 1938
  
- ◆ Project consists of:
  - ◆ Earthen Embankment Dam, 51 feet high, 3,514 feet long
  - ◆ Unregulated trapezoidal earthen spillway
  - ◆ Corrugated, 48-inch, 390 foot-long metal pipe outlet with slide gate
  
- ◆ Original construction completed in 1938
- ◆ Reservoir stores 5,975 acre-feet at spillway crest
- ◆ 27 water users, irrigates approximately 6,000 acres
- ◆ The dam is a "high hazard" structure, which means that its failure could cause loss of life. Numerous farms and ranches, roads, bridges, and utilities are located in the flood plain.

#### **PROJECT DEFICIENCIES**

- ◆ Excessive artesian pressures in the dam foundation, threatening embankment stability.
- ◆ Existing drains and outlet conduit are deteriorating and at the end of design life.
- ◆ Excessive seepage.

#### **PROPOSED REHABILITATION**

- ◆ Replacing the outlet conduit with a new structure of similar design.
- ◆ Install new drains and construct toe berm for seepage control
- ◆ Estimated cost: \$1,519,743
- ◆ Funding sources include an RRGL Grant and Loan, DNRC in-kind contribution, and Water Storage and Hydropower Account revenue.
- ◆ The Water Users will increase contract water charges by approximately \$3.37 per share to service debt on the new \$200,000 loan.